



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 345132 D20524 JCH	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/FR2003/002512	International filing date (day/month/year) 12 août 2003 (12.08.2003)	Priority date (day/month/year) 14 août 2002 (14.08.2002)
International Patent Classification (IPC) or national classification and IPC B23K 23/00		
Applicant RAILTECH INTERNATIONAL		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of 6 sheets, including this cover sheet.
☒ This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of 3 sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☐ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☐ Certain observations on the international application

Date of submission of the demand 12 mars 2004 (12.03.2004)	Date of completion of this report 12 November 2004 (12.11.2004)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/FR2003/002512

I. Basis of the report

1. With regard to the elements of the international application:*

- ☐ the international application as originally filed
- ☒ the description:
pages _____ 1-30 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the claims:
pages _____ 1-11 _____, as originally filed
pages _____, as amended (together with any statement under Article 19
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☒ the drawings:
pages _____ 1/2-2/2 _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____
- ☐ the sequence listing part of the description:
pages _____, as originally filed
pages _____, filed with the demand
pages _____, filed with the letter of _____

2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language _____ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/fig _____

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**

* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

** Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International Application No.
PCT/FR 03/02512

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Claims	5-9, 11	YES
	Claims	1-4, 10	NO
Inventive step (IS)	Claims	8	YES
	Claims	1-7, 9-11	NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO

2. Citations and explanations

Reference is made to the following documents:

D1: DE 198 22 851 A

D2: EP 0 407 240 A (cited in the application)

D3: DE 196 35 173 C

1. Lack of novelty

1.1 Claim 1

The present application does not comply with PCT Article 33(1) since the subject matter of claim 1 does not meet the novelty requirement of PCT Article 33(2).

D1 describes (the references in brackets are to that document)

a cover (14) intended to close an upper opening (11a), of specific internal dimensions, in an aluminothermic reaction chamber of a crucible (2), the cover comprising to this end an outer lower peripheral edge (an outer annular part of the cover) which can rest on an upper peripheral edge (11) delimiting the upper opening,

the cover (14) being substantially continuous and bearing integrally, via the lower edge, a

substantially continuous, annular filter lining (14a) suitable for forming a substantially continuous intermediate device for supporting the lower edge on the upper edge (11), and

the weight of the cover (14) being sufficient to withstand solely by gravity any gas pressure that may build up in the chamber during an aluminothermic reaction (since D1 does not specify any means of securing the cover, for example clips, the features concerning securing by the inherent weight of the cover alone are implicit).

1.2 Claims 2 to 4 and 10

D1 also describes all the features of these claims (filter linings are typically compressible and hence implicit).

2. Lack of inventive step

Dependent claims 5 to 7, 9 and 11 do not contain any features which, combined with the features of any claim to which they refer, might define subject matter which would satisfy the PCT inventive step requirements.

Claims 5 and 6: The cover flange is an alternative design to that proposed in D1 (holes 11a) for protecting the filter lining from sprayed particles produced by the aluminothermic reaction. The features concerning play between the filter lining and this flange are obvious (see D1) since the gaseous reaction products have to be able to pass through the filter lining.

Claims 7 and 9: A cover designed as a pot and a cover designed with centring means are known from D2. Therefore these claims are obvious from the disclosure in D1 and D2.

Claim 11: The use of sand agglomerated with a binder is known in the prior art (see D3, for example).

3. The combination of features in claim 8 is not disclosed in the prior art and cannot be derived therefrom in an obvious manner, for the following reasons.

The subject matter of claim 8 differs from the prior art in that there is annular play between the flange and the filter lining, and in that the lower edge of the cover has blind cavities, located and distributed over the periphery, resulting in a larger filtering surface area towards the interior, since part of its periphery and height are exposed towards the aluminothermic reaction chamber.

Therefore the subject matter of claim 8 is novel (PCT Article 33(2)).

The problem addressed by the present invention can thus be considered that of improving dust filtration. The solution to this problem proposed in claim 8 of the present application is considered to involve an inventive step (PCT Article 33(3)) since it cannot be derived in an obvious manner from the prior art.